

AMENDMENT TO THE CLAIMS:

1 - 19 (Cancelled)

20. (Original) A bipolar transistor comprising;

 a collector;

 a base; and

 a polysilicon emitter containing a dopant species and a polysilicon grain size modulating species.

21. (Original) The bipolar transistor of claim 20, wherein said dopant species is arsenic.

22. (Original) The bipolar transistor of claim 20, wherein said polysilicon grain size modulating species is selected from the group consisting of antimony and carbon.

23. (Original) The bipolar transistor of claim 20, wherein the base current of said bipolar transistor is higher or lower than the base current of an identical bipolar transistor fabricated without said polysilicon grain size modulating ion implantation step.

24. (Original) The bipolar transistor of claim 20, wherein the resistance of said emitter of said bipolar transistor is higher or lower than the emitter resistance of an identical bipolar transistor fabricated without said polysilicon grain size modulating species ion implantation step.

25. (Original) The bipolar transistor of claim 20, wherein said dopant species is arsenic and is

implanted into said polysilicon emitter at a dose of 1E15 to 2.3E16 atm/cm² and at an energy of about 40 to 70 Kev, and wherein said polysilicon grain size modulating species is antimony and is implanted into said polysilicon emitter at a dose of 1E15 to 1.5E16 atm/cm² and at an energy of 30 to 70 Kev.

26. (Original) The bipolar transistor of claim 20, wherein said dopant species is arsenic and is implanted into said polysilicon emitter at a dose of 1E15 to 2.3E16 atm/cm² and at an energy of about 40 to 70 Kev, and wherein said polysilicon grain size modulating species is carbon and is implanted into said polysilicon emitter at a dose of 1E14 to 1E16 atm/cm² and at an energy of 15 to 35 Kev.

27. (Original) A device comprising;
a polysilicon layer forming at least a portion of a structure of said device; and
said polysilicon layer containing a dopant species and a polysilicon grain size modulating species.

28. (Original) The device of claim 27, wherein said dopant species is arsenic.

29. (Original) The device of claim 27, wherein said polysilicon grain size modulating species is selected from the group consisting of antimony and carbon.

30. (Original) The device of claim 27, wherein said dopant species is arsenic and is implanted

into said polysilicon layer at a dose of 1E15 to 2.3E16 atm/cm² and at an energy of about 40 to 70 Kev, and wherein said polysilicon grain size modulating species is antimony and is implanted into said polysilicon layer at a dose of 1E15 to 1.5E16 atm/cm² and at an energy of 30 to 70 Kev.

31. (Original) The device of claim 27, wherein the concentration of dopant is higher at a predetermined distance from a bottom surface of said polysilicon layer than the concentration of dopant at the same pre-determined distance from a bottom of an identical polysilicon layer of an identical device fabricated without said polysilicon grain size modulating ion implantation step.

32. (Original) The device of claim 27, wherein said portion of a structure of said device is selected from the group consisting of polysilicon gates of field effect transistors, polysilicon gates of bipolar transistors, polysilicon lines of thin film resistors and polysilicon lines of damascened thin film resistors.

REMARKS

Favorable consideration and allowance of the claims of the present application, as amended herein, is respectfully requested.

In this preliminary amendment, applicants have cancelled original Claim 1-19. Applicants have also amended the specification to include reference to the parent application.

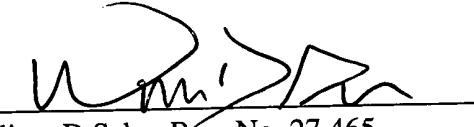
Since the above amendments to the claims and specification do not introduce new matter into the application, entry thereof is respectfully requested.

Consideration and allowance of the claims of the present application are thus respectfully requested.

Respectfully submitted,

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